

# Notice of Allowability

Application No.

10/091,745

Examiner

Cameron Saadat

Applicant(s)

ANDERSON ET AL.

Art Unit

3714

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed 10/31/2007.
2. ☒ The allowed claim(s) is/are 1-15, 17-29 and 31-68.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee. The following amendment is related to correction of typographical errors and is not a substantive change.

The application has been amended as follows:

In the Claims:

Claim 29:

line 10, replace "shaped knowledge basis" with --shape knowledge base --

### REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance: Patentability seen in, although not limited to independent claims 1, 29, 49, 51-53, and 57. The closest prior art of record does not teach or fairly suggest a system and method for designing a medical device having the claimed knowledge base the includes geometries for at least one segment of a medical device and rules relating a geometry of the segment of the device to a portion of a model of a body cavity or lumen; based on analysis, providing a recommendation relating to the geometry of the medical device.

The closest prior art of record, Cai et al., Parametrical Modeling Based Multi-Layered Approach for Design and Validation of Catheterization devices disclose a shape library wherein a user selects curve shapes to build a catheter. However, the reference fails to disclose that the shape library includes rules relating to a geometry of the segment of the device to a portion of a model of a body cavity or lumen; and fails to disclose the claimed feature of providing a recommendation relating to the geometry of the medical device. Although Cai et al. disclose that parameter values can be optimized, the reference does

not teach or suggest the feature of providing a recommendation relating to the geometry of the medical device.

In addition, regarding claim 49, the prior art of record fails to teach or suggest the claimed feature of a knowledge base having rules relating a geometry of the segment of the device to a portion of a geometric model of a body cavity or lumen, wherein each rule comprises a statement with a certainty factor. Furthermore, the prior art of record fails to teach or suggest (as per claim 53), the feature of obtaining a recommendation that includes determining physical properties and/or characteristics of the device for placement in the body cavity/lumen using facts and rules of mechanics and physical properties of the body cavity/lumen.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Clynych (US 6,463,351) – discloses a method for producing custom fitted medical devices.
- Sahay et al. (US 5,824,085) – disclose a system and method for cavity generation for surgical planning for placement of a bone prosthesis.
- D'Urso (US 6,112,109) – discloses a method of modeling prostheses by using CT scan data.
- Clynych (WO 98/30176) - discloses a method for producing custom fitted medical devices.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cameron Saadat whose telephone number is (571) 272-4443. The examiner can normally be reached on M-F 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Cameron Saadat  
January 7, 2008



Robert E Pezzuto  
Supervisory Patent Examiner  
Art Unit 3714